WHAT IS CLAIMED IS:

1. A purified protein comprising the C-terminal 60 contiguous amino acids of SEQ ID NO: 3, wherein said purified protein displays the antigenicity or immunogenicity of SEQ ID NO: 3.

2. The purified protein of claim 1, wherein said protein comprises the C-terminal 500 amino acids of SEQ ID NO: 3.

3. The purified protein of claim 1, wherein said protein comprises SEQ ID NO: 3.

4. The purified protein of claim 1, wherein said protein comprises amino acids 636-1110 of SEQ ID NO: 3.

5. The purified protein of claim 1 that consists of less than the entire amino acid sequence of SEQ ID NO: 3.

6. An isolated nucleic acid comprising 3750 contiguous nucleotides of SEQ ID NO: 1, or the complement thereof.

7. An isolated nucleic acid, wherein said isolated nucleic acid comprises 500 contiguous nucleotides of the 3′ end of SEQ ID NO: 1, or the complement thereof.

8. The isolated nucleic acid of claim 6, wherein said isolated nucleic acid comprises the nucleotide sequence of SEQ ID NO: 1, or the complement thereof.

9. The isolated nucleic acid of claim 6 that is DNA.

10. An isolated nucleic acid comprising a nucleotide sequence encoding the protein of claim 1 or claim 3, or the complement of said nucleotide sequence.

11. A cell transformed with a nucleic acid, said nucleic acid comprising (a) a nucleotide sequence encoding the protein of claim 1, or (b) the complement of said nucleotide sequence.

12. A recombinant cell containing the nucleic acid of claim 6, in which the nucleotide sequence is under the control of a promoter heterologous to the nucleotide sequence.

13. A recombinant cell containing a nucleic acid vector that comprises the nucleic acid of claim 6.

14. An antibody that specifically binds to a protein the amino acid sequence of which consists of SEQ ID NO: 3.

15. The antibody of claim 14 that is monoclonal.

16. A molecule comprising a fragment of the antibody of claim 14, which fragment binds said protein.

17. A method of producing a protein comprising:

growing a recombinant cell containing the nucleic acid of claim 10 in which said nucleotide sequence is under the control of a promoter heterologous to said nucleotide sequence, such that the protein encoded by said nucleic acid is expressed by the cell; and

recovering said expressed protein.

18. An isolated protein that is the product of the process of claim 17.

19. A pharmaceutical composition comprising a therapeutically effective amount of the protein of claim 1, and a pharmaceutically acceptable carrier.

20. A pharmaceutical composition comprising a therapeutically effective amount of the nucleic acid of claim 6; and a pharmaceutically acceptable carrier.

21. A pharmaceutical composition comprising a therapeutically effective amount of the nucleic acid of claim 6; and a pharmaceutically acceptable carrier.

22. A pharmaceutical composition comprising a therapeutically effective amount of the antibody of claim 14, and a pharmaceutically acceptable carrier.

23. A method of identifying an agent that modulates the binding of a protein comprising SEQ ID NO: 3 to a binding partner, comprising contacting said protein and said binding partner with an agent; and measuring an amount of a complex comprising said protein and said binding partner in the presence of said agent, wherein if said amount differs from said amount in the absence of said agent, said agent is identified as an agent that modulates the binding of said protein to said binding partner.

24. The method of claim 23, wherein said agent or said binding partner is purified.

25. A method of identifying a molecule that binds to a ligand, comprising:

(a) contacting a ligand with one or more candidate binding molecules under conditions conducive to binding between said ligand and said molecules, wherein said ligand is selected from the group consisting of a first protein comprising SEQ ID NO: 3, a second protein comprising a fragment of SEQ ID NO: 3 comprising the FH2 domain of DIAPH3 but less than all of SEQ ID NO: 3, and a nucleic acid encoding said first protein or said second protein; and

(b) identifying any of said molecules that specifically binds to said ligand.

26. The method of claim 25, wherein said molecule is an antibody.

27. The method of claim 25, wherein said molecule is a small molecule.

28. A method of diagnosing an individual as having breast cancer, comprising comparing the level of expression of a nucleic acid encoding SEQ ID NO: 3 in a sample derived from breast cells of said individual to a control level of said expression, and diagnosing said individual as having breast cancer if said level of expression of said nucleic acid encoding SEQ ID NO: 3 is higher than said control level of expression.

29. The method of claim 28, wherein said level of expression of a nucleic acid encoding SEQ ID NO: 3 is determined by hybridizing said nucleic acid with an oligonucleotide complementary and hybridizable to nucleotides 1-862, 2927-3045, or 3412-3929 of SEQ ID NO: 1, and determining the amount of said hybridization.

30. A method of diagnosing an individual as having breast cancer comprising comparing the level of a protein the amino acid sequence of which consists of SEQ ID NO: 3 in a sample derived from breast cells of said individual to a control level of said protein; and classifying said individual as having breast cancer if said level of said protein in said sample is higher than said control level of said protein.

31. A method of imaging a breast cancer tumor comprising:

(a) contacting cells of said tumor with an antibody that binds specifically to a protein the amino acid sequence of which consists of SEQ ID NO: 3, wherein said antibody is labeled; and

(b) detecting said label.

32. A method of predicting the prognosis of a breast cancer patient comprising:

(a) determining the level of expression of a nucleic acid encoding SEQ ID NO: 3 in a sample derived from breast cancer tumor cells from said patient;

(b) comparing said level of expression to a control level of said expression; and

(c) predicting that said patient will have a poor prognosis if said level of expression of said nucleic acid encoding SEQ ID NO: 3 in said sample is higher than said control level of said expression.

33. The method of claim 32, wherein said level of expression of a nucleic acid encoding SEQ ID NO: 3 is determined by hybridizing said nucleic acid with an oligonucleotide complementary and hybridizable to nucleotides 1-862, 2927-3045, or 3412-3929 of SEQ ID NO: 1, and determining the amount of said hybridization.

34. The method of claim 32, wherein said determining is carried out by a method comprising:

(a) hybridizing nucleic acids in said sample to an oligonucleotide, wherein said oligonucleotide is hybridizable to SEQ ID NO: 1 or its complement; and

(b) determining the amount of said hybridization.

35. The method of claim 33, wherein said oligonucleotide is a probe on a microarray.

36. The method of claim 33, wherein said oligonucleotide is one of a plurality of probes on a microarray, wherein said plurality comprises probes complementary and hybridizable to nucleic acids respectively encoded by five different breast cancer-related markers that do not encode SEQ ID NO: 3.

37. The method of claim 33, wherein said oligonucleotide is one of a plurality of probes on a microarray, wherein said plurality comprises probes complementary and hybridizable to nucleic acids respectively encoded by twenty different breast cancer-related markers that do not encode SEQ ID NO: 3.

38. The method of claim 36, wherein said five different breast cancer-related markers are present in Table 1.

39. The method of claim 36, wherein said five different breast cancer-related markers are present in Table 2.

40. A method of predicting the prognosis of a breast cancer patient comprising:

(a) determining the level of a protein comprising SEQ ID NO: 3 in a sample derived from breast cancer tumor cells from said patient;

(b) comparing said level of said protein to a control level of said protein; and

(c) predicting that said patient will have a poor prognosis if said level of said protein comprising SEQ ID NO: 3 is significantly higher than said control level of said protein.

41. The method of claim 40, wherein said determining is carried out by a method comprising:

(a) contacting said protein comprising SEQ ID NO: 3 from said sample with an antibody that specifically binds said protein; and

(b) determining the amount of antibody bound to said protein,

wherein said amount of antibody bound to said protein indicates said level of said protein in said breast cancer tumor sample.

42. A kit comprising in a first container an oligonucleotide that hybridizes to SEQ ID NO: 1 under stringent conditions, wherein said oligonucleotide is at least 12 nucleotides in length, and wherein said oligonucleotide is complementary and hybridizable to nucleotides 1-862, 2927-3045, or 3412-3929 of SEQ ID NO: 1.

43. A kit for the diagnosis and/or prognosis of breast cancer, comprising in a first container an oligonucleotide that hybridizes to a nucleotide sequence that encodes SEQ ID NO: 3 under stringent conditions, wherein said oligonucleotide is at least 12 nucleotides in length, and wherein said oligonucleotide is complementary and hybridizable to nucleotides 1-862, 2927-3045, or 3412-3929 of SEQ ID NO: 1, and further comprising in a second container a known amount of a nucleic acid to which said oligonucleotide is complementary and hybridizable.

44. The kit of claim 43, wherein said oligonucleotide is a probe on a microarray.

45. The kit of claim 44, wherein said microarray comprises probes complementary and hybridizable to nucleic acids respectively encoded by five breast cancer-related markers other than a nucleotide sequence that encodes SEQ ID NO: 3.

46. An article of manufacture comprising a container comprising a purified protein comprising SEQ ID NO: 3.

47. A kit comprising in a first container an antibody that specifically binds to a protein the amino acid sequence of which consists of SEQ ID NO: 3, or specifically binds to a fragment of said protein, and further comprising in a second container a known amount of said protein or a fragment thereof to which said antibody binds.

48. A kit comprising in one or more containers a forward primer and a reverse primer that amplify at least a portion of the nucleotide sequence of SEQ ID NO: 1 when used in a polymerase chain reaction, wherein said forward primer and said reverse primer are complementary and hybridizable to nucleotides 1-862, 2927-3045, or 3412-3929 of SEQ ID NO: 1 or the complementary sequence thereof.

49. A method of inhibiting the expression of a nucleotide sequence encoding SEQ ID NO: 3 comprising contacting an RNA encoding SEQ ID NO: 3 with an interfering RNA, said interfering RNA comprising a nucleotide sequence complementary and hybridizable to SEQ ID NO: 1, under conditions that allow said interfering RNA and said mRNA to hybridize.

50. The method of claim 49, wherein the nucleotide sequence of said interfering RNA, or a complement thereof, is present within SEQ ID NO: 1.

51. The method of claim 49, wherein the nucleotide sequence of said interfering RNA is selected from the group consisting of SEQ ID NO: 274 and SEQ ID NO: 275.

52. The method of claim 23, wherein, said protein comprising SEQ ID NO: 3 is purified.

53. The method of claim 25, wherein said first protein or said second protein is purified.